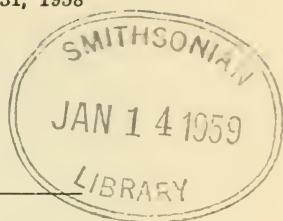


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON



DESCRIPTIONS OF TWO ALLIED SPECIES OF  
CINARA (APHIDAE)

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It is now almost forty years since Wilson described *Lechniclla pinivora* a species which has since been placed in the genus *Cinara*. Since that time, I am aware of no other material of this species having been taken. It has been keyed but once, by Wilson, in Hemiptera of Connecticut and has never been illustrated. I am indebted to the United States National Museum for the loan of the "type" slide, and to J. O. Pepper for sending me the material from which the new species is described, which he had determined as *pinivora*.

*Cinara pinivora* (Wilson)

*Alate viviparous female.*

Size and general color.—Length of uncleaned specimens from vertex to end of cauda varying from 3.00-3.07mm. Color in life not recorded, as represented by mounted material as follows: Head and thorax dark dusky brown. Abdomen brown, with cornicles darker, the constricted area of the cornicles much so. First and second antennal segments concolorous with head. Third antennal segment with base pale, the extent of this region varying, but it may extend to middle or to second or third secondary sensorium, remainder of segment dusky. Fourth, fifth and sixth antennal segments uniform dusky, or with the basal portions of the fourth and fifth segments somewhat paler. Femora with basal halves yellowish, remainder of segment brown. Tibiae with basal region brown, or dark brown, this region about equal in length to the tarsal segments. This dark region is followed by a pale region which gradually shades into brown, this region may equal slightly more or less than one half of the total length. Tarsal segments concolorous with ends of tibiae. Transverse pigmented areas anterior to cauda divided, brownish, only slightly setulose. A few hairs on dorsum of abdomen arise from small irregular pigmented areas, these areas are larger towards the posterior.

Head and thorax.—Width of head through the eyes about .69mm. Length of antennal segments as follows: III .48 — .60mm., IV .18 — .225mm., V .22 — .28mm., VI .11 + .04mm. Hair on antennae not numerous, set at angle of about forty-five degrees, longer and coarser on anterior margin where the hair on the third segment vary from

.06 — .09mm. in length. Third and fourth antennal segments not smooth but not imbricated. Fifth antennal segment rougher than third and fourth, sixth segment imbricated, the imbrications being very distinct. Secondary sensoria distributed as follows: III 4 — 6 arranged in a row, varying in size, IV 0 — 1 as a rule none, V 0 — 1 as rule one. Only primary sensoria on fifth and sixth segments with wide rims. Marginal sensoria on sixth segment confined to a row not much longer than sensorium. Median transverse suture well developed, dark. Hairs on dorsum of head about .08mm. in length. Ocular tubercles fairly well developed. No specimen with rostrum fully extended. Last three segments of the rostrum with the following lengths: .19, .15, .08mm. Lateral lobes of thorax with numerous hairs on median half. Median posterior lobe of thorax almost free from hairs on anterior half. Triangular area between lateral and median posterior lobes with two hairs. Media twice forked, the second fork varying in position. All femora with numerous long fine hairs. The hairs on the anterior margin of the metathoracic femora being about .12mm. in length. Hairs on metathoracic tibiae numerous, set at an angle varying from 45-60 degrees, in length varying from .10 — .12mm. Hairs on inner margin of metathoracic tibiae numerous, set at an angle varying from 45-60 degrees, slightly shorter, with the hairs near the inner apex much shorter. Metathoracic tarsal segments .07 and .22 — .25mm. in length. Hairs on ventral surface of first metatarsal segment numbering about twelve. Hairs on dorsal surface of second metatarsal segment reclinate much longer than hairs on ventral surface.

Abdomen.—Hairs on dorsum of abdomen not numerous, varying slightly in length with the longest towards the posterior, spaced for the most part as far apart as their length which is about .09mm. Hairs on ventral surface of abdomen more numerous than those on the dorsum, and slightly finer. Hairs on transverse pigmented spots about .12mm. in length, confined to a row along the posterior margin. Cornicles with outer margin somewhat irregular, more or less oval in shape, being longer than wide, and with the constricted area closer to the posterior than to the anterior. The constricted area is rather high, and is sharply distinguished from the base. The hairs on the cornicles are fine, about .08mm. in length, evenly distributed over the surface and very few in number, the total number being about twenty. The surface of the abdomen is finely reticulated. The setulae on the transverse pigmented areas and on the genital plate are very poorly developed. The genital plate is quite small with the hairs confined largely to the ends, it is concave on its anterior and posterior margins. Hairs on cauda confined to posterior margin. Both the cauda and anal plate have setulae on the surface.

Lectotype alate viviparous female indicated by arrow on slide indicated as "type" by Wilson. Host *Pinus sp.* New York. 1908. Hopkins 7422. Slide on deposit in the United States National Museum.

#### *Cinara harmonia* n. sp.

*Apterous viviparous female.*

Size and general color.—Length from vertex to end of cauda varying from 3.67 — 3.90mm. Color notes taken from living specimens not

complete, but described on slide as "dark," "greenish brown," "brownish" with the cornicles black. Color as represented by cleared mounted specimens as follows: Head, first and second antennal segments, and pro and mesothorax dusky brown. Mid region of metathorax with irregular patches of dusky brown. Third, fourth and fifth antennal segments very pale dusky with apical ends darker. All of sixth segment dusky brown. Basal fourth of pro and mesothoracic femora pale brownish, remainder brown. Basal half of metathoracic femora pale brownish but darker than basal region of other femora, remainder brown. Basal region of pro and mesothoracic tibiae dark dusky brown for a distance about equal to the length of the fourth antennal segment, this dark region followed by a pale dusky to pale brown region which gradually grows darker towards the apex, beyond the middle. Metathoracic tibiae similar to other tibiae except that the apical brown area is more extensive. Dorsum of abdomen with varying number of pigmented areas which vary greatly in size, number and shape, the larger being closer to posterior end.

Head and thorax.—Width of head through the eyes about .69mm. Ocular tubercles small but very protuberant. Median transverse suture well developed, brown. Hairs on dorsum of head fine, long varying from .10 — .11mm. in length. Antennal segments varying in length as follows: III .53 — .60mm., IV .21 — .27mm., V .27 — .30mm., VI .12 — .15 + .04mm. Secondary sensoria distributed as follows: III 0 — 1 as a rule one, IV 0 — 2 as a rule one, V 1 — 2 as a rule one. Hairs on antennal segments about .09mm. in length with those on the anterior margin more numerous, set at an angle of about sixty degrees. Brownish portion of fifth and all of sixth antennal segments imbricated, the imbrications being strongly developed on the sixth. Marginal sensoria in a row, extending basal to primary sensorium. Only primary sensoria on the fifth and sixth segments with wide rims. Rostrum when extended reaching to the cornicles, last three segments with the following lengths: .21, .19 and .10mm. Mesosternal tubercle present, with a very wide base, in shape more or less a rounded hump. Pro and metathoracic femora varying in length from 1.05 — 1.65 and 1.65 — 1.68mm. Only one specimen had prothoracic femora as long as 1.65mm. Lengths of pro and metathoracic tibiae varying in length as follows: 1.42 — 1.50 and 2.65 — 2.95mm. Hairs on outer margin of metathoracic tibiae quite similar to those on the inner margin, set at an angle of about 45 degrees, shorter than width of segment, about .09mm. in length. Hairs on dorsal surface of second metatarsal segment but little longer than those on ventral surface. Length of metatarsal segments about .105 and .30mm.

Abdomen.—Cornicles with base more or less oval, the outer margin irregular or slightly fragmented, measuring about .48 — .56mm. front to rear. Hairs on constricted area of cornicles much more numerous than hairs elsewhere, near the margin they are scarce. Dorsum of abdomen reticulated. Hairs on dorsum of abdomen rather sparse, farther apart than their length, varying from .08 — .09mm. Hairs on ventral surface of abdomen more numerous than the hairs on the dorsum, also shorter. Transverse pigmented spots anterior to cauda wide, almost joined by teeth, hair on these confined to a row along the posterior margin. Two pigmented areas are as a rule interior to these,

they vary in size and shape. All such pigmented areas have very well developed setulae.

*Alate viviparous female.*

Size and general color.—Length from vertex to end of cauda varying from 2.92 — 4.2mm. Color of cleared specimens much like that of the apterous viviparous female, except that the metathoracic tibiae are apt to be darker, the pale area not so pale, or extensive, nor are the cornicles so dark.

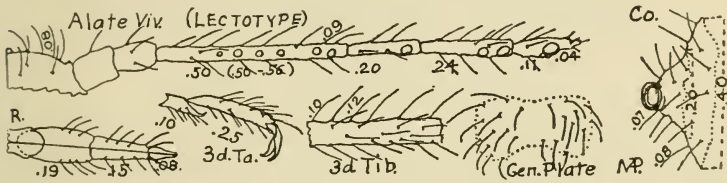
Head and thorax.—Ocular tubercles small but protuberant. Width of head varying from .69 — .75mm. Antennal segments with the following lengths: III .52 — .60mm., IV .23 — .26mm., V .30 — .33mm., VI .12 — .13 + .04mm. Secondary sensoria distributed as follows: III 5 — 9, IV 1 — 3 as a rule one, V 0 — 1 as a rule one. On the third segment the secondary sensoria are arranged in a straight row, they are slightly tuberculent and vary in size. Hair on antennae not numerous, set at an angle of about 45 degrees, on third segment varying in length from .075 — .10mm. Hair on posterior margin of third segment less numerous than the hair on the anterior margin and only about .05mm. long. Rostrum when extended reaching to the middle of the cornicles and in one case to the genital plate. Last three segments of the rostrum with the following lengths: .21, .18 and .09mm. Hairs on lateral lobes of thorax numerous, covering slightly more than half of lobe. Triangular area between lateral lobes and median posterior lobe often with as many as four hairs. Lengths of pro and metathoracic femora varying as follows: 1.05 and 1.42 — 1.65mm. Lengths of pro and metathoracic tibiae varying as follows: 1.50 and .262 — 2.70mm. Hairs on metathoracic femora long and fine, numerous, more numerous on anterior margin, but no longer than hairs on posterior margin. Hairs on metathoracic tibiae varying in length from .10 — .11mm., numerous, same on outer and inner margins, except for shorter hairs on inner margin near apex. Metatarsal segments about .12 and .30mm. in length. Ventral surface of first metatarsal segment with about 12 hairs. Hairs on second metatarsal segment similar to those of viviparous female. Media twice forked, second fork as a rule closer to first fork than to margin of wing, base of media 1 and 2 often missing.

Abdomen.—Cornicles with outer margin in the form of a rounded oval with irregular outline. Constricted portion acentric, closer to posterior margin. Hairs on constricted area much more numerous than elsewhere, they being scarce near the outer margin. Constricted area of the cornicles not sharply distinct from base, the slope being quite gradual. Transverse pigmented areas anterior to cauda with well developed setulae. Hairs on these areas, with one or two exceptions confined to a row along posterior margin. Genital plate rather large with mid anterior and posterior regions recessed. Hairs on genital plate confined largely to ends. Hairs on dorsum of the abdomen for the most part closer together than their length which is about .07mm. Hairs on ventral surface of abdomen much more numerous, and only about .06mm. long.

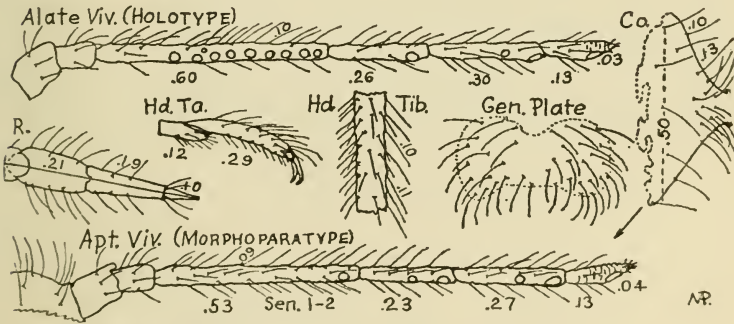
This species is closely allied to *C. pinivora* (W) and keys to this species in Wilson's key, in Hemiptera of Connecticut. Only alates of Wilson's species are known. Alates of this species differ from alates

of pinivora in the longer segments of the rostrum, more numerous hairs on the cornicles, and the uneven distribution of these hairs. The number of hairs on the cornicles being thirty or more, not twenty or less. The cornicles also differ in size and shape. The antennal segments of harmonia are longer, and there are more secondary sensoria on the third antennal segment. The metathoracic tibiae are darker.

Holotype alate viviparous female, morphotype apterous viviparous female. Host, red pine (*Pinus resinosa*) taken on two or three years old wood. J. O. Pepper, July 4, 1947, Philipsburg, Pennsylvania (Black Mosh. Dam). Type slides deposited in the United States National Museum.



*Cinara pinivora* (W)



*Cinara harmonia* n.sp.